

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): A process automation system, comprising:
process devices that execute predetermined functions as part of the process automation and thereby exchange data that are relevant to at least one of the functions and the devices within the process automation system,

wherein some but less than all of the data are exchanged in an encrypted form,

wherein, in at least a first of the process devices, a communication device determines by hard wiring or programming which of transmission data are encrypted in an encryption device of the first process device, and

wherein, in at least a second of the process devices, the communication device recognizes which of reception data are encrypted and decrypts the reception data in a decryption device of the second process device.

2. (previously presented): A process automation system as claimed in Claim 1, wherein, of the data exchanged in the encrypted form, at least some of the same data are exchanged, in parallel, in an unencrypted form.

3. (previously presented): A process automation system as claimed in Claim 2, wherein the encrypted data are exchanged with a lower priority in comparison with the unencrypted data.

4. (previously presented): A process automation system as claimed in Claim 1, wherein the encrypted data are exchanged with a lower priority in comparison with unencrypted data.

5. (previously presented): A process automation system as claimed in Claim 3, wherein the process devices comprise memories that collect the encrypted data before the encrypted data are exchanged.

6. (original): A process automation system as claimed in Claim 1, further comprising a central key administration that registers public encryption keys of the process devices and authenticates the public encryption keys with a private encryption key of the central key administration.

7 - 12. (canceled).